

Elections/Restrictions

Applicants have cancelled claims 6, 12, 20 and 23 without prejudice.

Specification

Applicants have amended the title to include the limitation "unequal primer concentration."

Terminal Disclaimer

Applicants have enclosed a Terminal Disclaimer over U.S. 6,015,664.

§ 103 Rejections

Claims 34 - 36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Karron, et al. in view of Sninsky, et al. Applicants note that neither Karron, et al. or Sninsky, et al. teach unequal primer concentration or a address detection of multiple targets. Applicants note that on page 4 of the Office Action, Wu, et al. is described and discussed in the context of the § 103 rejection although the Examiner has not formally rejected the claims over Wu, et al. Applicants seek clarification. As the Examiner has discussed Wu, et al. Applicants will address the reference in their response.

Applicants have amended the claims to specify that substantially only double-stranded amplification end-products are formed. Applicants understand that the amplification reactions require denaturation into single-

stranded substrates and the formation of single-stranded intermediate products. However, Applicants mean to indicate that in their reactions, as described in the specification, a predominantly double-stranded amplification product is formed. Applicants submit that Wu, et al., in the last round of amplification, a overwhelmingly single-stranded product is formed. This is directly contrary to Applicants' result.


In the "rebuttal section" on page 5, the Examiner notes that Applicants have not narrowed the claim to double-stranded product and that the claims also do not explicitly recite a multiplex reaction. Applicants have now amended the claims to recite a multiplex reaction and have clarified the nature of the end-product.

Applicants believe the claims to be allowable and respectfully request a Notice of Allowance. A Petition and Fee for Two Months Extension of Time is enclosed. If further fees are necessary, please charge Deposit Account 17-0055.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Kelly J. Henrickson, et al.
Serial No.: 09/484,704
Filed: January 18, 2000
For: VIRUS ASSAY METHOD
Group Art Unit: 1656
Examiner: J. Siew

Commissioner For Patents
Washington, D.C. 20231

MARKED UP VERSION OF THE CLAIMS

34. (Amended) A method of detecting the presence of at least two [a] target nucleic acids [acid] in a biological sample comprising the steps of

(a) isolating nucleic acid from a biological sample,

(b) exposing the nucleic acid or cDNA created from the nucleic acid to at least two [one] primer pairs [pair], each pair comprising a 5' and a 3' primer, specific for the target nucleic acid under conditions suitable for nucleic acid amplification and wherein the 5' and 3' primers are of unequal concentration, wherein substantially only [a] double-stranded amplification [product is] end products are formed if the sample contains a [the] target nucleic acid, and

(c) determining whether the amplification product is present by exposing the step (b) products to protein-linked oligonucleotide probes under conditions suitable for hybridization between complementary nucleic

acid sequences and examining the probes for the presence of a hybridization product, wherein the oligonucleotide probe is of a sequence identical to the target nucleic acid.